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AT&T Wireless Services, Inc. · Ellipso, Inc. · Ericsson Inc · Garmin International, Inc.
General Aviation Manufacturers Association · LocatorNet · Lockheed Martin Corporation
Magellan Corporation · Motorola, Inc. · National Business Aviation Association
Nokia, Inc. · Nortel Networks, Inc. · Omnistar, Inc. · Outreach
QUALCOMM Incorporated · Rockwell Collins · Satellite Industry Association
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May 18, 2001

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**FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY**

Michael K. Powell
Chairman
Federal Communications Commission
The Portals
445 Twelfth St., SW
Washington, DC 20554

Re: ET Docket 98-153

Dear Chairman Powell,

The Signatories listed above provide the following joint comments to the Commission in the above proceeding.

As a preliminary matter, many of the entities listed on this letterhead have filed individual comments with the Commission, reflecting their individual interests. However, all the Signatories to this letter have certain fundamental principles and conclusions in common. These are as follows:

FIRST, ultra-wideband (UWB) devices may offer a promising technology that could provide new and innovative services. However, test results to date demonstrate that such devices have unique transmission characteristics that produce intentional transmissions that cause significant harmful interference to GPS, other safety-of-life services, wireless services such as PCS, as well as to satellite services such as DARS. These tests show that other characteristics of the proposed UWB signals also vary greatly from the characteristics of unintentional emitters. Consequently, the signatories recommend that UWB devices be limited to spectrum above 6 GHz, not be allowed to operate in any restricted band, including safety-of-life service bands, and be subject to a licensing regime.

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SECOND, to the extent the Commission considers permitting the deployment of UWB devices consistent with the foregoing, the Commission should identify specific categories of UWB devices and establish proposed rules for licensing these categories based on either actual tests of individual UWB waveforms or measurements using UWB simulators. This differentiated approach is appropriate and necessary because of the facts that: (i) there are a wide range of potential UWB devices, with differing characteristics, (ii) only a very small number of UWB devices have been tested (and not against many FCC-licensed receivers that will be affected), and (iii) many proposed UWB applications are in the concept stage. This differentiated approach is critical to assure that a particular class of UWB device may be safely introduced above 6 GHz without causing harmful interference to licensed and unlicensed services authorized to use these frequency bands, and without unwanted emissions causing harmful interference to licensed and unlicensed services operating below 6 GHz.

THIRD, in light of the above, the Signatories propose that the Commission take the following steps to implement a licensing regime separate and apart from Part 15:

(i) identify spectrum above 6 GHz, other than spectrum in restricted bands, where UWB devices can be used without creating harmful interference to users of that spectrum;

(ii) define specific categories of UWB devices, along with the technical and operational characteristics of each category, so that the Commission is in a position to identify appropriate regulation for specific categories of devices;

(iii) identify areas where further testing and/or analysis is needed, including the aggregate effects of multiple UWB devices, and take action to ensure that these tests or analysis are completed expeditiously;

(iv) based on steps (i)-(iii) above, devise specific rules for each category of UWB device. These rules should govern the application of the category of UWB device and its mode of operation, by providing allowable average and peak power levels, the allowable ranges of pulse characteristics in the time domain, allowable spectrum masks, and other appropriate limits which govern its introduction.

(v) incorporate these specific rules in a new, UWB-specific licensing system that would allow UWB devices to operate in the non-restricted bands specified above 6 GHz. The Commission should request comments from interested parties on any such proposed rules and the proposed licensing system before issuing a final rule.

(vi) should new categories of UWB devices be developed, the Commission should generally follow the procedure outlined above in order to enable the safe deployment of such new UWB categories.

The Signatories hope that these joint suggestions will assist the Commission in reaching satisfactory and expeditious resolution of this matter.

Respectfully submitted,

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